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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/882,585	06/15/2001	Christopher Bolin	2114P018	9593

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EXAMINER	
SON, LINH L D	

ART UNIT	PAPER NUMBER
2135	

DATE MAILED: 03/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/882,585	BOLIN, CHRISTOPHER	
	Examiner	Art Unit	
	Linh Son	2135	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 June 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-56* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-56* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This detail action is responding to the application filed on 06/15/2001.

Claims 1-56 are pending.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jenevein et al, US Patent No. 6615365B1, hereinafter "Jenevein".

3. As per claims 1and 15, Jenevein teaches "A method for preventing needless rescanning of objects comprising: verifying an integrity of a file system by scanning the file system resulting in at least one known scanned region (Col 15 lines 35-43, Col 16 lines 5-20, and Col 14 lines 49-67); creating tables of the known scanned regions of the verified file system; and validating an integrity of an object in the file system against the database of known scanned regions (Col 14 lines 49-67, Col 15 lines 20-33, and Col 16 lines 5-20)". However, Jenevein does not teach specifically the uses of a database to contain information to verify the known scanned regions. Nevertheless, Jenevein does teach of storing the information to verify the known scanned regions in tables format for

software program to access for validation (Col 15 lines 20-33, and Col 16 lines 5-20). Therefore, it would have been obvious at the time of the invention was made for one having ordinary skill in the art to modify Jenevein's invention to create a database containing the file system tables for data query more efficiently. Further, the file system tables can also be interpreted as a database, since each items store in the table having sequential name as if it is in a database and a software program querying the data (Col 13 lines 63-65, Col 15 lines 20-33, and Col 16 lines 5-20).

4. As per claims 2, 16, 30, and 44, Jenevein teaches "The method of claims 1, 15, 29, and 43, wherein verifying the integrity of the file system comprises scanning the objects in the file system for a presence of viruses" in (Col 11 lines 8-15, Col 16 lines 5-20, and Col 12 lines 9-18).

5. As per claims 3, 17, 31, and 45, Jenevein teaches "The method of claims 1, 15, 29, and 43, wherein verifying the integrity of the file system further comprises monitoring the objects in the file system" in (Col 11 lines 8-15, Col 16 lines 6-20).

6. As per claims 4, 18, 32, and 46, Jenevein teaches "The method of claims 3, 17, 31, and 45, wherein monitoring comprises: receiving a file system event from a real-time monitoring system, the file system event indicating that an object in the file system has been accessed; and flagging the database of known scanned regions to indicate which

of the known scanned regions was occupied by the accessed object" in (Col 11 lines 8-15, Col 14 lines 30-48, and Col 15 lines 3-18).

7. As per claims 5, 19, 33, and 47, Jenevein teaches "The method of claims 4, 18, 32, and 46, wherein the database of known scanned regions comprises a copy of a partition table data structure indicating an identity and a location of a known scanned region occupied by the object" in (Col 8 line 63 to Col 10 line 20 and Col 13 line 15 to Col 14 line 27).

8. As per claims 6, 20, 34, and 48, Jenevein teaches "The method of claims 5, 19, 33, and 47, wherein the partition table data structure includes an inode that contains information about the object other than name, and a directory block that contains the object name and a number of the inode of the object" in (Col 11 lines 8-15, Col 13 line 15 to Col 14 line 27, and Col 15 lines 20-33).

9. As per claims 7, 21, 35, and 49, Jenevein teaches "The method of claims 6, 19, 33, and 47, wherein the partition table data structure includes a super block that contains information about the file system as a whole, and a data block that contains a location in the file system where the object is stored" in (Col 13 line 15 to Col 14 line 27, and Col 15 lines 20-33).

10. As per claims 8, 22. 36, and 50, Jenevein teaches "The method of claims 7, 15, 29, 43, wherein validating the integrity of an object comprises determining that the object does not occupy a flagged known scanned region" in (Col 11 lines 8-15, Col 13 line 15 to Col 14 line 27).

11. As per claims 9, 23, 37, and 51, Jenevein teaches "The method of claims 6, 18, 32, and 46, wherein flagging comprises indicating which of the inodes and directory blocks were occupied by the accessed object" in (Col 11 lines 8-15, Col 15 line 20-30, and Col 13 line 15 to Col 14 line 27).

12. As per claims 10, 24, 38, and 52, Jenevein teaches "The method of claims 9, 20, 34, and 48, wherein validating the integrity of an object comprises determining that the object does not occupy a flagged inode and directory block" in (Col 11 lines 8-15, Col 14 line 10 to Col 15 line 10).

13. As per claims 11, 25, 39, and 53, Jenevein teaches "The method of claims 1, 15, 29, 43, further comprising: re-scanning the object when the integrity of the object has not been validated; and by passing re-scanning the object when the integrity of the object has been validated" in (Col 11 lines 8-15, Col 14 line 10 to Col 15 line 10).

14. As per claims 12, 26, 40, and 54, Jenevein teaches "The method of claims 4, 18, 32, and 46, wherein the real-time monitoring system is a VxD program" in (Col 2 lines 28-35).

15. As per claims 13, 27. 41, and 55, Jenevein teaches "The method of claims 4, 18, 32, and 46, wherein the real-time monitoring system is a UNIX daemon" in (Col 2 lines 30-39).

16. As per claims 14, 28, 42, and 56, Jenevein teaches "The method of claims 4, 18, 32, and 46, wherein the real-time monitoring system is a network loadable module" in (Col 4 lines 15-24).

17. As per claim 29, Jenevein teaches "An integrity validator comprising: a verifier to verify the integrity of a file system by scanning the file system resulting in at least one known scanned region (Col 15 lines 35-43, Col 16 lines 5-20, and Col 14 lines 49-67); tables of the known scanned regions of the verified file system; and a validator to validate the integrity of an object in the file system against the database of known scanned regions (Col 14 lines 49-67, Col 15 lines 20-33, and Col 16 lines 5-20". However, Jenevein does not teach specifically the uses of a database to contain information to verify the known scanned regions. Nevertheless, Jenevein does teach of storing the information to verify the known scanned regions in tables format for software program to access for validation (Col 15 lines 20-33, and Col 16 lines 5-20). Therefore,

it would have been obvious at the time of the invention was made for one having ordinary skill in the art to modify Jenevein's invention to create a database containing the file system tables for data query more efficiently. Further, the file system tables can also be interpreted as a database, since each items store in the table having sequential name as if it is in a database and a software program querying the data (Col 13 lines 63-65, Col 15 lines 20-33, and Col 16 lines 5-20).

18. As per claim 43, Jenevein teaches "A computer system comprising: a processor coupled to a system bus; a memory coupled to the processor through the system bus; a machine-accessible medium coupled to the processor through the system bus; an integrity process executed from the machine-accessible medium by the processor (Col 11 lines 45-67), wherein the integrity process causes the processor to verify the integrity of a file system resulting in at least one known scanned region (Col 15 lines 35-43, Col 16 lines 5-20, and Col 14 lines 49-67, to create tables of known scanned regions of the verified file system, and to validate the integrity, of an object in the file system against the database of known scanned regions (Col 15 lines 20-33, and Col 16 lines 5-20)". However, Jenevein does not teach specifically the uses of a database to contain information to verify the known scanned regions. Nevertheless, Jenevein does teach of storing the information to verify the known scanned regions in tables format for software program to access for validation (Col 15 lines 20-33, and Col 16 lines 5-20). Therefore, it would have been obvious at the time of the invention was made for one having ordinary skill in the art to modify Jenevein's invention to create a database containing

the file system tables for data query more efficiently. Further, the file system tables can also be interpreted as a database, since each items store in the table having sequential name as if it is in a database and a software program querying the data (Col 13 lines 63-65, Col 15 lines 20-33, and Col 16 lines 5-20).

Conclusion

19. Any inquiry concerning this communication from the examiner should be directed to Linh Son whose telephone number is (571)-271-3856.

20. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Kim Y. Vu can be reached at (571)-272-3859. The fax numbers for this group are (703)-872-9306 (official fax). Any inquiry of general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (571)-272-2100.

21. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval IPAIR.I system. Status information for published applications may be obtained from either Private PMR or Public PMR. Status information for unpublished applications is available through Private PMR only. For more information about the PAIR system, see http://pzr-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AU 2135

Linh LD Son

Patent Examiner